

Date:  
User:Monday, 9/10/2007 1:31:31 PM  
Kim Johnston

## Process Sheet

Sptd  
u/o 8/10/07

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : BRACKET ASSEMBLY
Job Number : 34513 -L	
Estimate Number : 10290	
P.O. Number : N/A	Part Number : D3121144
This Issue : 9/10/2007 S.O. No. : N/A	Drawing Number : D3121 REV D
Prsht Rev. : NC	Project Number : N/A
First Issue : N/A Type : MACHINED PARTS	Drawing Revision : D
Previous Run : 31729	Material : N/A
Written By : <u>SA 07.09.11</u>	Due Date : 9/30/2007 Qty: 8 Um: Each
Checked & Approved By : <u>SA 07.09.11</u>	
Comment : Est Rev: Pick: A 04.02.18 New issue KJ/DS	

## Additional Product

Job Number:



Seq. #: Machine Or Operation: Description:

1.0 M174B1000X02000 17-4 SS Bar



Comment: Qty.: 0.3864 f(s)/Unit Total : 3.0912 f(s)

Material: 17-4 SS Bar per AMS 5604/5643

(M17-4-B1000x02000)

Identify for D3121-114

Batch: M10308931.500 x 2.00Just Batch this only.

2.0 BAND SAW BAND SAW



Comment: BAND SAW

Cut blanks: (1.000" x 2.000") 4.425" long

SA 07.11.13

3.0 HAAS1 HAAS CNC VERTICAL MACHINING #1



Comment: HAAS CNC VERTICAL MACHINING #1

1-Machine D3121-114 as per Folio FA330 and Dwg D3121 Identify as D3121-114

2-Deburr

3-Scribe batch number

SA 07.11.14

4.0 QC2 INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

SA 07.11.17

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: PD Date: 08/01/07  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



Date: Monday, 9/10/2007 1:31:31 PM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BRACKET ASSEMBLY

Job Number: 34513

Part Number: D3121144

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC8

SECOND CHECK



Comment: SECOND CHECK

*Handwritten:* 08-01-07

6.0

D312121

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 16.0000 Each(s)

Pick:

Qty Part Number

Description Batch

2 D3121-21

Bolt

*Handwritten:* B23459(2) B34522(7)

*Handwritten:* 08/01/07 (4)

7.0

D3121241

Bearing Assembly



Comment: Qty.: 2.0000 Each(s)/Unit Total : 16.0000 Each(s)

Pick:

Qty Part Number

Description Batch

2 D3121-241 Bearing Ass

*Handwritten:* B21855A (2) B34523(10)

*Handwritten:* 08/10/07 (4)

8.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Assemble D3121-143 as per Dwg D3121.

*Handwritten:* ml 08/01/07 (x4)

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

*Handwritten:* 08/01/07 (x4)

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location:

*Handwritten:* ST 233

*Handwritten:* AS 08/01/07

*Handwritten:* (x4)

11.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

*Handwritten:* 08/01/07

*Handwritten:* (4)

Job Completion



*Handwritten:* 08/01/07

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	34513
Description: Bracket		Part Number:	D3121-114
Inspection Dwg: D3121 Rev: D		Page 1 of 2	

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.080	+/-0.010	0.080	✓			
0.300	+/-0.010	0.301	✓			
R0.375	+/-0.010	R0.375	✓			
1.54	+/-0.030	1.540	✓			
0.350	+/-0.010	0.350	✓			
R0.250	+/-0.010	R0.250	✓			
1.800	+/-0.030	1.800	✓			
Ø0.392	+0.002/-0.000	Ø0.393	✓			
Ø0.201	+0.005/-0.000	Ø0.201	✓			
0.100	+/-0.010	0.095	✓			
2.540	+/-0.010	2.540	✓			
1.590	+/-0.010	1.593	✓			
0.160	+/-0.010	0.160	✓			
0.400	+/-0.010	0.410	✓			
1.220	+/-0.010	1.230	✓			
1.600	+/-0.010	1.603	✓			
3.80	+/-0.030	3.804	✓			
1.800	+/-0.010	1.801	✓			
R0.500	+/-0.010	R0.500	✓			
0.130	+/-0.010	0.123	✓			
3.41	+/-0.030	3.410	✓			
3.65	+/-0.030	3.630	✓			
2.24	+/-0.030	2.210	✓			
45°	+/-0.1°	45°	✓			
R0.250	+/-0.010	R0.250	✓			
3.97	+/-0.030	3.966	✓			
R0.38	+/-0.030	R0.380	✓			
Ø0.392	+0.002/-0.000	Ø0.393	✓			
Ø0.201	+0.005/-0.000	Ø0.201	✓			
0.100	+/-0.010	0.095	✓			
0.268	+/-0.010	0.268	✓			
R0.260	+/-0.010	R0.260	✓			
0.080	+/-0.010	0.078	✓			
0.300	+/-0.010	0.301	✓			



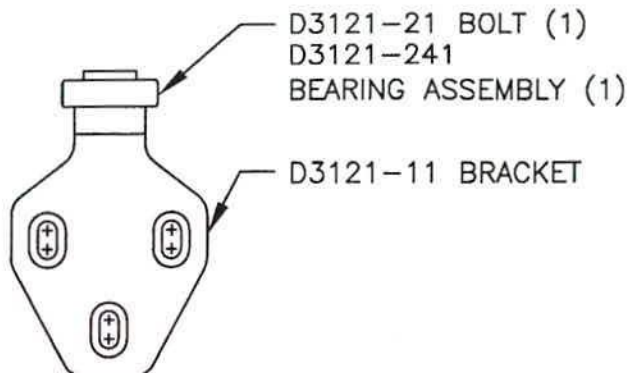




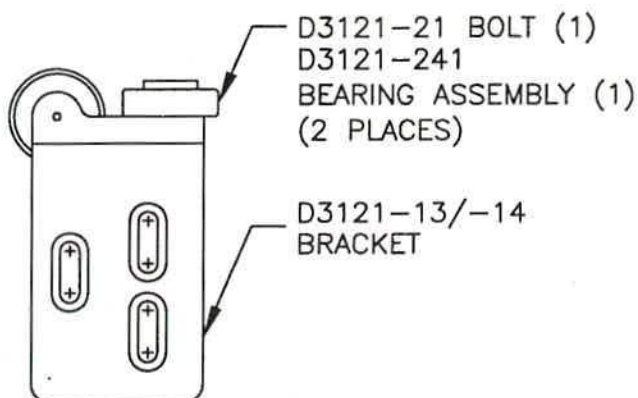
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CHECKED	APPROVED	DRAWING NO. D3121	REV. D SHEET 1 OF 10
DATE 06.05.17		TITLE BRACKET ASSEMBLY	SCALE 1:2
A	02.04.15	NEW ISSUE	
B	03.01.16	ADD RIDGES; ADD MAT'L PROP; FIX P/N ADD -141/-143/-144/-145/-146	
C	04.02.17	ADD CLEARANCE; USE -241 BEARING	
D	06.05.17	D3121-25 CAP WAS 1.024, NOW 1.000	

RELEASED

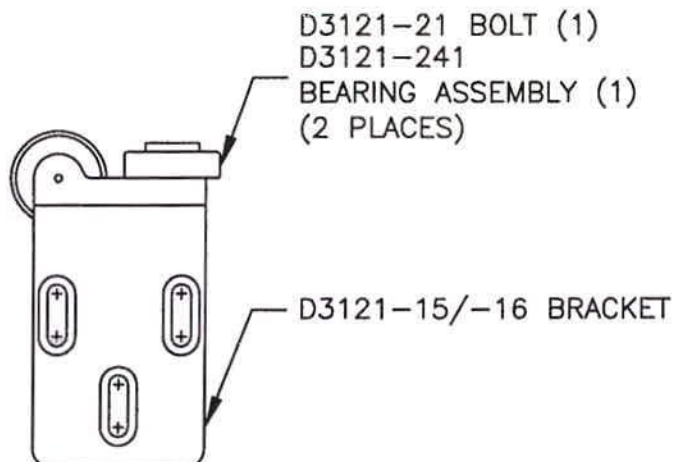
06.06.02



**D3121-041 BRACKET ASSEMBLY**  
(REPLACES PREMIER P/N B30-23000-33)



**D3121-043 (SHOWN) / D3121-044 (OPPOSITE) BRACKET ASSEMBLY**  
(REPLACES PREMIER P/N B30-23000-37/-38)



**D3121-045 (SHOWN) / D3121-046 (OPPOSITE) BRACKET ASSEMBLY**  
(REPLACES PREMIER P/N B30-23000-35/-36)

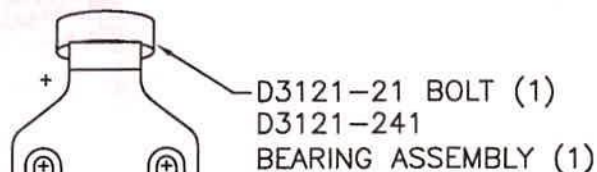
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DATE 06.05.17		TITLE BRACKET ASSEMBLY	SCALE 1:2

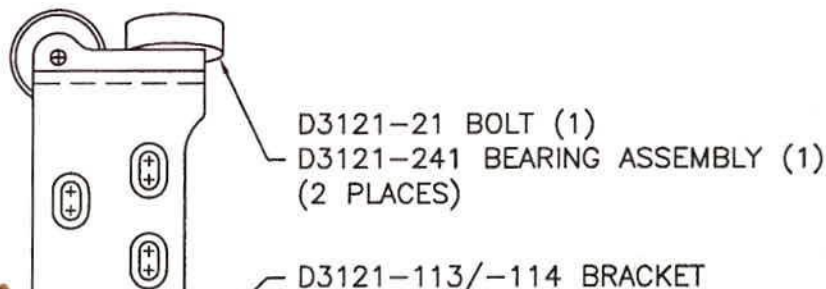


D3121-111 BRACKET

**D3121-141 BRACKET ASSEMBLY**  
(REPLACES PREMIER P/N B30-23001-01)

RELEASED

06.06.02 H.H.



D3121-113/-114 BRACKET

**D3121-143 (SHOWN) / D3121-144 (OPPOSITE)**  
**BRACKET ASSEMBLY**  
(REPLACES PREMIER P/N B30-23000-03/-04)



D3121-115/-116  
BRACKET

**D3121-145 (SHOWN) / D3121-146 (OPPOSITE)**  
**BRACKET ASSEMBLY**  
(REPLACES PREMIER P/N B30-23000-05/-06)

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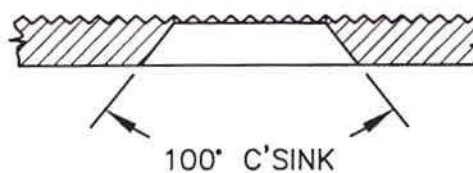
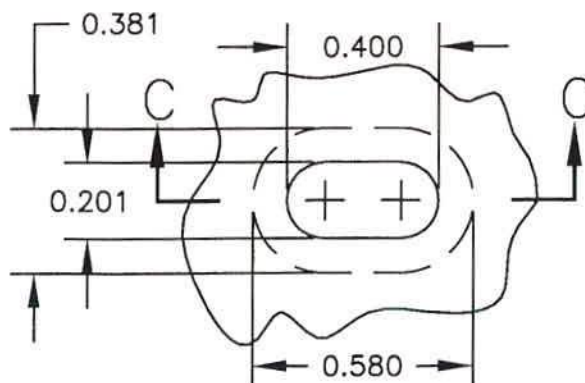
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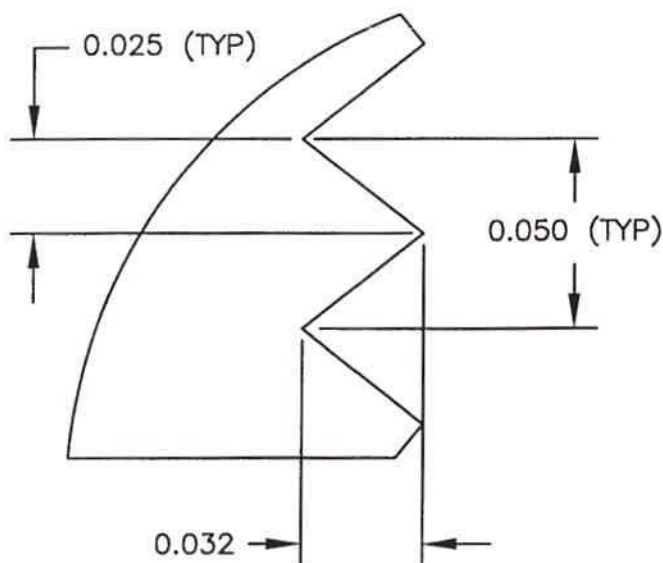
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DATE 06.05.17	TITLE BRACKET ASSEMBLY		SCALE 1:1

**DETAIL A:  
SLOT DETAIL**  
SCALE 2:1  
VIEW ROTATED



**SECTION  
C-C**

**DETAIL B:  
RIDGE DETAIL**  
PARTIAL SECTION  
SCALE 1:20



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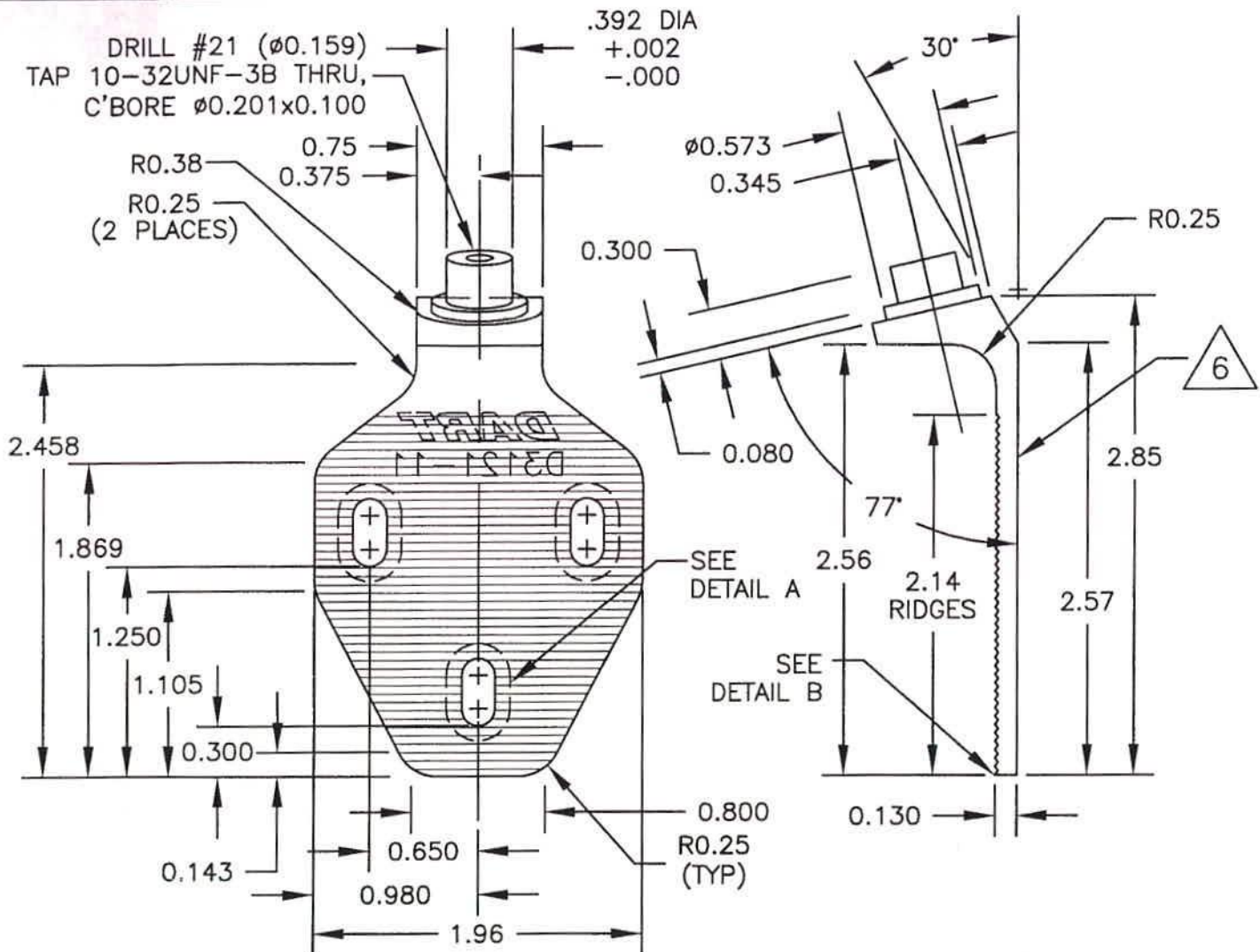
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DATE 06.05.17		TITLE BRACKET ASSEMBLY	SCALE 1:1

**D3121-11 BRACKET**

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)  
MIN ULTIMATE TENSILE = 150 ksi  
MIN YIELD TENSILE = 100 ksi
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N & LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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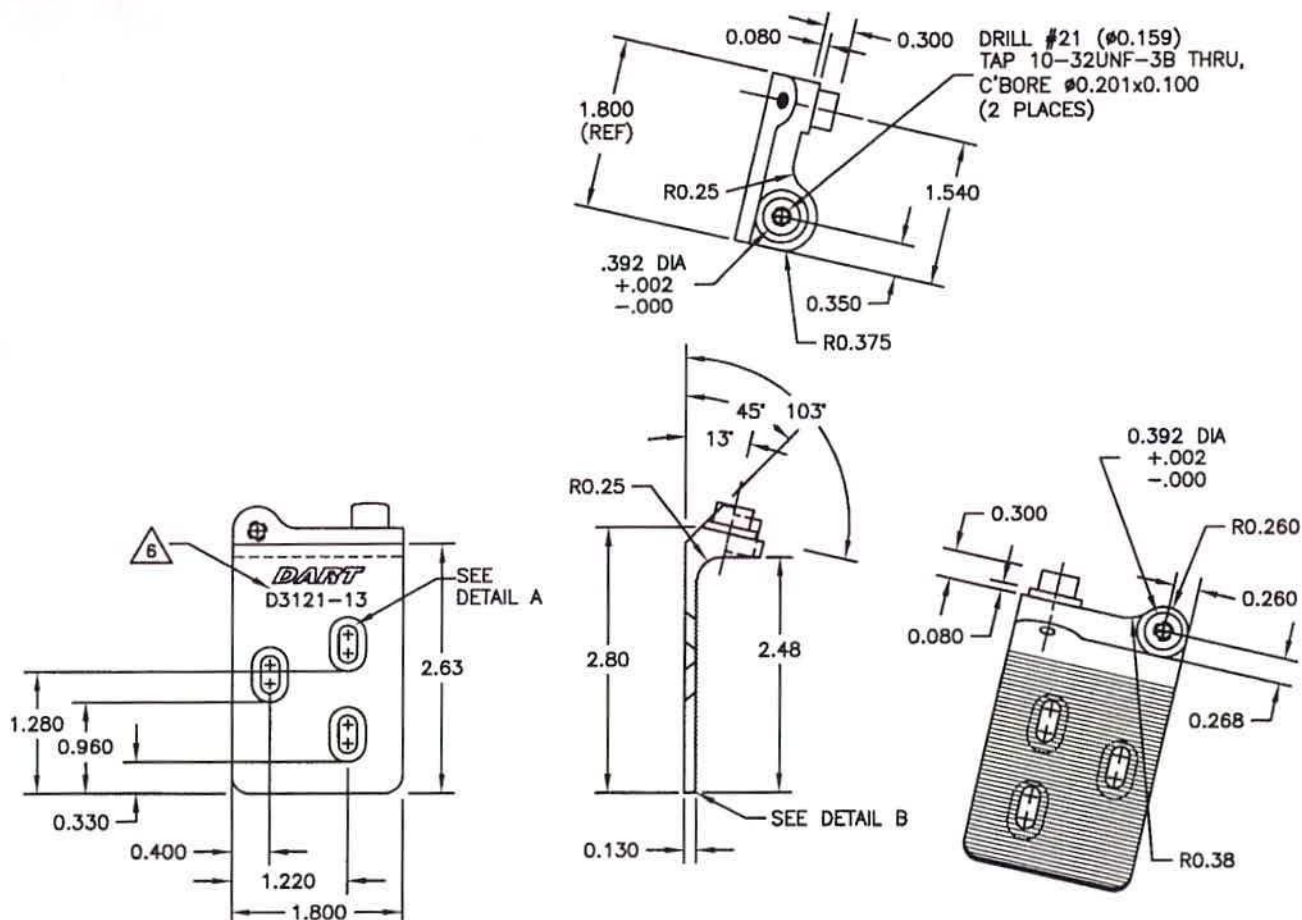
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DATE 06.05.17		TITLE BRACKET ASSEMBLY	SCALE 1:2



**D3121-13 BRACKET (SHOWN)**  
**D3121-14 BRACKET (OPPOSITE)**

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)  
MIN ULTIMATE TENSILE STRENGTH = 150 ksi  
MIN YIELD TENSILE STRENGTH = 100 ksi
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N & LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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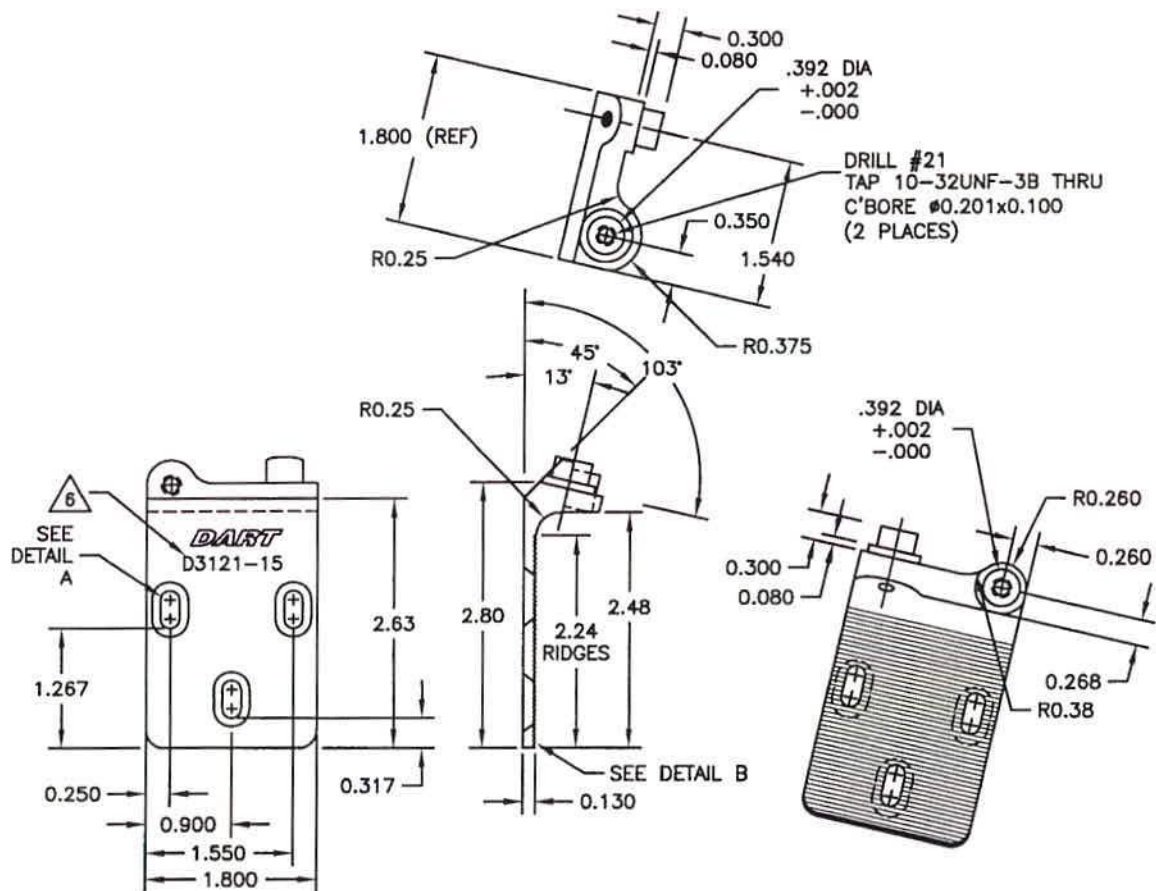
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DATE 06.05.17		TITLE BRACKET ASSEMBLY	SCALE 1:2



**D3121-15 BRACKET (SHOWN)**  
**D3121-16 BRACKET (OPPOSITE)**

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)  
MIN ULTIMATE TENSILE = 150 ksi  
MIN YIELD TENSILE = 100 ksi
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N AND LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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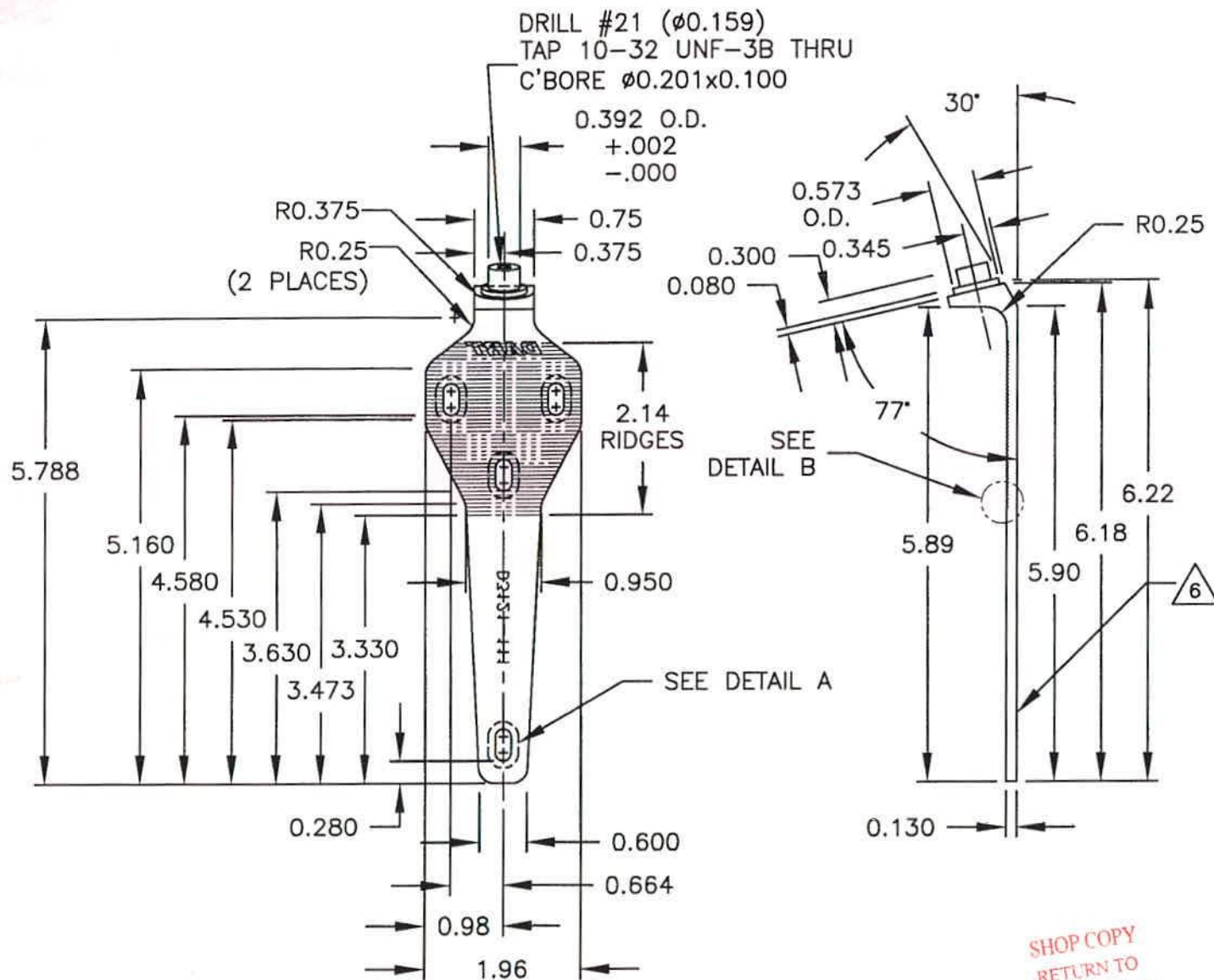
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CHECKED #	APPROVED #	DRAWING NO. D3121	REV. D SHEET 7 OF 10
DATE 06.05.17		TITLE BRACKET ASSEMBLY	SCALE 1:2



#### D3121-111 BRACKET

- 1) REPLACES PREMIER P/N B32-23001-11
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)  
MIN ULTIMATE TENSILE = 150 ksi  
MIN YIELD TENSILE = 100 ksi
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 6) ENGRAVE DART P/N & LOGO IN AREAS SHOWN
- 7) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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06.06.02

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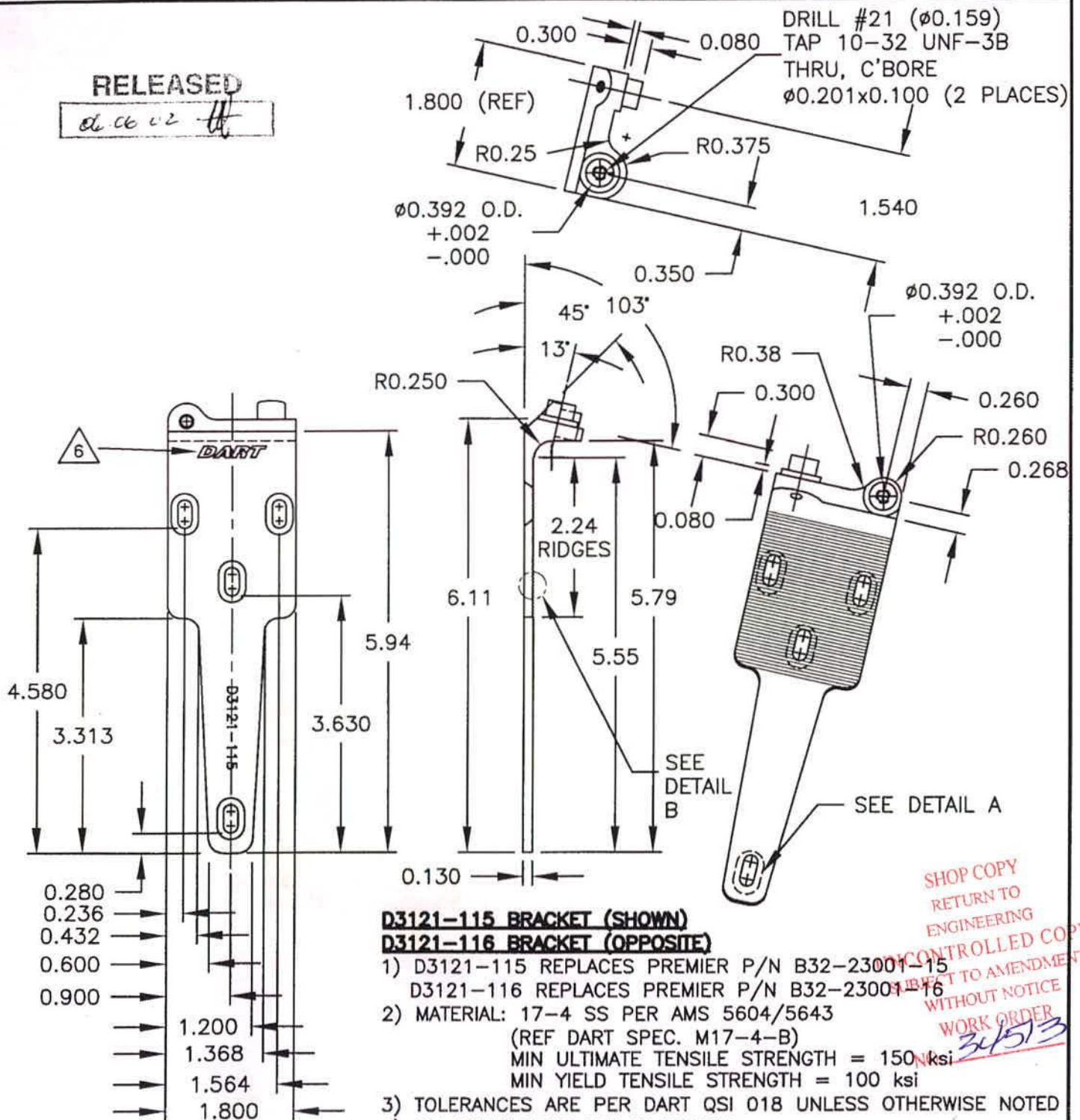


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CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D3121	REV. C SHEET 9 OF 10
DATE 04.02.18	TITLE BRACKET ASSEMBLY		SCALE 1:2

RELEASED

04 06 02 [Signature]

**D3121-115 BRACKET (SHOWN)****D3121-116 BRACKET (OPPOSITE)**

- 1) D3121-115 REPLACES PREMIER P/N B32-23001-15  
D3121-116 REPLACES PREMIER P/N B32-23001-16
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643  
(REF DART SPEC. M17-4-B)  
MIN ULTIMATE TENSILE STRENGTH = 150 ksi  
MIN YIELD TENSILE STRENGTH = 100 ksi
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 6) ENGRAVE DART P/N & LOGO IN AREAS SHOWN
- 7) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

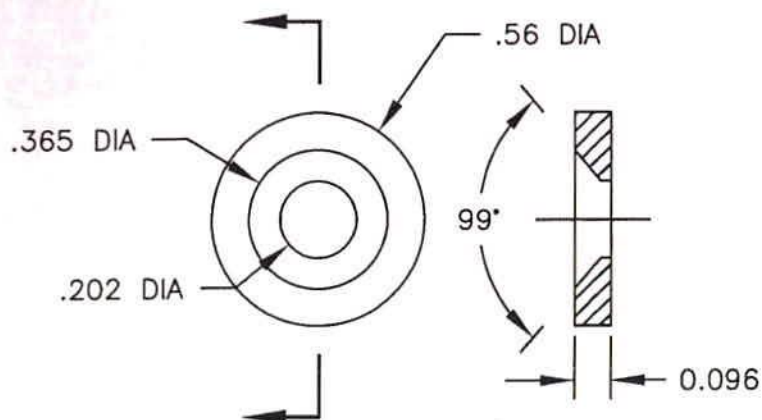
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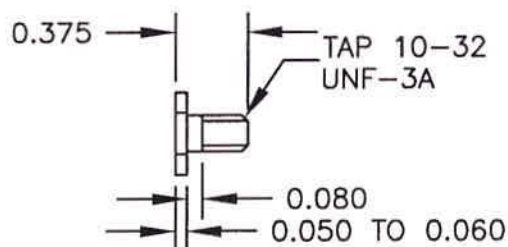


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DATE 06.05.17	TITLE BRACKET ASSEMBLY		SCALE 1:1



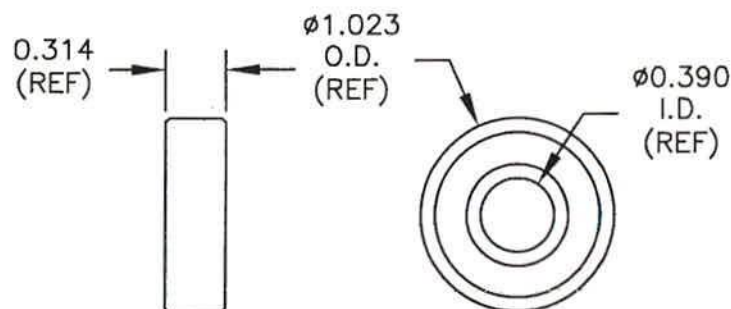
#### D3121-17 WASHER (SCALE 2:1)

- 1) REPLACES PREMIER P/N B32-23001-17
- 2) MATERIAL: AISI 303 SS ROUND BAR, ANNEALED (REF DART SPEC. M303R)
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015



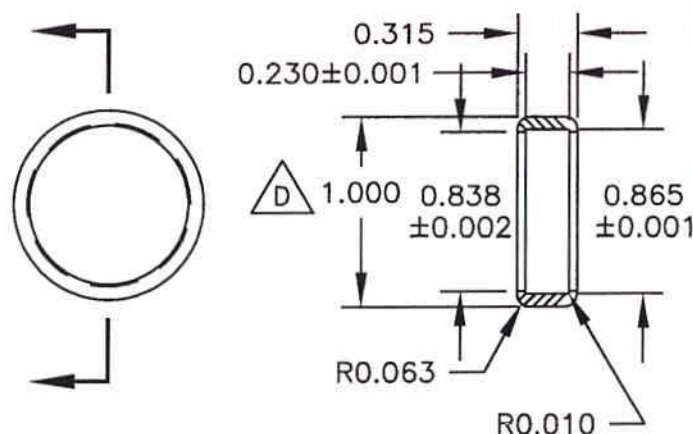
#### D3121-21 BOLT (SCALE 1:1)

- 1) MATERIAL: AISI 303 SS HEX, ANNEALED (REF DART SPEC. M303H0.500)
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015



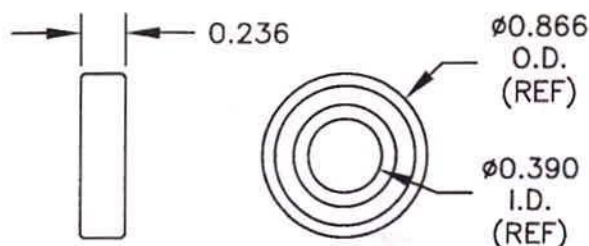
#### D3121-19 BEARING (SCALE 1:1)

- 1) POSSIBLE SUPPLIER: KING BEARING P/N 6000-2ZJ/EM FAFNIR P/N 9100KDD
- 2) ALL DIMENSIONS ARE IN INCHES



#### D3121-25 CAP (SCALE 1:1)

- 1) MATERIAL: DELRIN ROD,  $\phi 1.25$  (REF DART SPEC. M-DELIN-R1.250)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES



#### D3121-23 BEARING (SCALE 1:1)

- 1) POSSIBLE SUPPLIER: SKF P/N 61900-2Z OR KML P/N 6900-ZZ
- 2) ALL DIMENSIONS ARE IN INCHES

RELEASED  
06 06-02



#### D3121-241 BEARING ASSEMBLY (SCALE 1:1)

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